

REMARKS

This application has been carefully considered in connection with the Examiner's Office Action dated January 5, 2010. Reconsideration and allowance are respectfully requested in view of the following.

Summary of Rejections

Claims 14-23 and 32-39 were pending at the time of the Office Action.

Claims 14-23 and 32-39 were rejected under 35 USC § 103.

With regard to the art rejections, the Office Action has cited McConnell, et al., U.S. Pub. No. 2003/0074313 ("McConnell"), Beckman, U.S. Pub. No. 2002/0143674 ("Beckman"), and Official Notice ("Official Notice").

Summary of Response

Claims 14-23 and 32-42 are currently pending following this response.

Claims 1-13 and 24-31 are previously canceled.

Claims 40-42 are newly added.

Claims 14, 16-18, 20, 22, 23, and 32-39 were previously presented.

Claims 15, 19, and 21 remain as originally submitted.

Remarks and Arguments are provided below.

Applicant Initiated Interview

Applicant thanks Examiner Mussa A. Shaawat for his time and consideration of the arguments presented in the interview on March 25, 2010. In the interview Examiner

Shaawat suggested some claim amendments. In the interest of advancing prosecution, Applicant has added dependent claims 40-42 to capture some of Examiner Shaawat's suggestions.

Response to Rejections

McConnell in view of Beckman, alone or in combination, do not teach or suggest registering data identifiers and mediation processes in a reference table where each data identifier corresponds to at least one mediation process. Furthermore, McConnell in view of Beckman, alone or in combination, do not teach or suggest identifying at least one mediation process to perform on invoice data by determining that the at least one of the plurality of mediation processes are registered in the reference table to correspond with the data identifier that corresponds to the invoice data. Automating the process of identifying which of the plurality of mediation processes should be performed on the invoice data by using the reference table and performing the mediation process on the invoice data to generate a mediated output enables a more efficient and less expensive system and method for processing data from several different sources.

Billing processing systems sometimes must accommodate billing data from several different sources in order to execute a subsequent processing operation. This sometimes presents a problem because first, multiple originating systems may generate billing data that is not uniform across all of the originating systems, and second, any request for processing the billing data in order to output or create a secondary type of invoice using the received billing data requires tremendous customization on a case-by-case basis.

Thus, the process of extracting data from multiple different systems and subsequently performing customized data processes becomes inefficient and expensive.

Accordingly, the pending application relates to a method for automating the process of identifying which mediation process from a plurality of data processes should be performed on the invoice data by using a reference table and performing the mediation process on the invoice data to generate a mediated output. The reference table comprises data identifiers and mediation processes, each data identifier registered to at least one mediation process. Invoice data is associated with a data identifier such that when the invoice data is received, the reference table can be consulted to determine, based on the data identifier associated with the particular invoice data, which specific mediation process is to be applied to the particular invoice data. Each mediation process may perform a different data processing function on invoice data depending on the specified need. For example, a customer may have a need for and request the creation of a secondary invoice that tracks specific identified charges or tracks billing periods outside the normal billing period. Thus, the pending application discloses identifying particular invoice data that is associated with the customer, determining a mediation process to be performed on the particular invoice data using the data identifier associated with the particular invoice data and the reference table, and performing the mediation process on the particular invoice data in order to generate a mediated output (e.g., the secondary invoice requested by the customer).

While McConnell may disclose that each message has a numeric identifier and an event linkage id, McConnell does not disclose that the numeric identifier or the event linkage id is in a reference table or that the numeric identifier or the event linkage id

corresponds to a mediation process. McConnell also discloses a billing log 5. However, McConnell does not disclose that the billing log 5 comprises a plurality of data identifiers, each identifier corresponding to at least one mediation process. Rather, the billing log 5 merely contains message data, such as the contents of a message header. Furthermore, McConnell does not disclose that the billing log 5 is consulted in order to determine how to process the messages. Instead, McConnell discloses that only a single process of routing is performed on each message and that each message has a header that comprises information to help determine whether to route the message to the billing log 5 or the real time billing mediation device 7. A message header is not a table, let alone a table comprising a plurality of identifiers, each identifier corresponding to at least one mediation process. Beckman does not cure the deficiencies of McConnell.

These distinctions, as well as others, will be discussed in greater detail in the analysis of the present claims that follows.

Detailed Response

Rejection of Claim 1 Under 35 U.C.S. § 103(a)

Claim 14 was rejected under 35 USC § 103(a) as being unpatentable over McConnell in view of Beckman.

I. McConnell in view of Beckman, alone or in combination, do not teach or suggest registering data identifiers and mediation processes in a reference table where each data identifier corresponds to at least one mediation process.

Claim 14 recites “registering...a plurality of data identifiers and a plurality of mediation processes in a reference table...wherein each of the plurality of data identifiers is registered to correspond to at least one of the plurality of mediation processes.”

The Office Action relied on paragraphs 0018-0020 of McConnell to disclose these limitations. For convenience, paragraph 0020 of McConnell is reproduced below.

[0020] Multiple messages may be created for a single transaction. Each message has a numeric identifier, and all messages that relate to the same transaction are linked with a unique number, called the event linkage id (ELID). The ELID is used to ensure that all messages related to one transaction can be associated, for example during processing by a billing mediation device 6 or 7. The gateway manages the generation and allocation of ELIDs.

Paragraph 0020 of McConnell merely discloses that each message has a numeric identifier and an event linkage id. Applicant respectfully submits that McConnell does not disclose that the numeric identifier or the event linkage id is in a reference table, let alone that the numeric identifier or the event linkage id corresponds to a mediation process. Rather, McConnell discloses in paragraph 0020 that the numeric identifier merely identifies a particular message and the event linkage id merely identifies all messages related to the same transaction (i.e., all messages that are related to the same transaction have the same event linkage id).

Furthermore, Applicant notes that the Examiner clarified in the telephone interview held on March 25, 2010 that he was interpreting the billing log 5 as the claimed reference table. Applicant respectfully submits that the billing log 5 does not comprise a plurality of data identifiers, each identifier corresponding to at least one mediation process. Rather, paragraph 0016 of McConnell discloses that the billing log 5

comprises “the contents of the billing header.” Paragraph 0034 of McConnell discloses examples of what can be included in a billing header. For example, paragraph 0034 of McConnell discloses that information in the billing header may be “the success of the service, the value of the service..., the names of the books the user purchased, etc.” While the billing log 5 may be a table, Applicant respectfully submits that the billing log 5 is not a table that comprises a plurality of identifiers, each identifier corresponding to at least one mediation process.

Moreover, Applicant notes that the only process disclosed by McConnell to be performed on the messages is the single process of routing the messages. For example, McConnell discloses in paragraphs 0010, 0016, 0054 and claims 1 and 3 that the messages may be routed to the billing log 5 or to the real time billing mediation device 7. Applicant respectfully submits that there would be no need to register anything to a table because the messages are always going to have the same process performed (i.e., routing) on them. In contrast to McConnell, the pending disclosure has a plurality of mediation processes that can be performed on invoice data, and thus, a reference table must be created and consulted in order to determine which of the plurality of mediation processes to perform on a particular invoice data.

Lastly, Applicant notes that McConnell discloses that each message has a header that includes information to determine how to process the message. For example, paragraphs 0015, 0016, and 0018 of McConnell disclose in part,

The gateway 1 detects and extracts each such header. In this embodiment, this is performed by code in the gateway stack recognizing the header. The header is forwarded in real time to the (internal) Billing Manager. Where the billing data are not required to be processed in real time, the Billing Manager sends the contents of the billing header (together with any others received in the preceding period) to the billing log 5...The

Billing Manager may route the billing data to the mediation device 7 in real time.

A table, such as the claimed reference table, would not be necessary in McConnell because each message has a header that may help identify whether to route the message to the billing log 5 or the real time billing mediation device 7. Applicant respectfully submits that a header of a message is not a table, let alone a table that comprises a plurality of data identifiers, each identifier corresponding to at least one mediation process, as claimed. Accordingly, McConnell in view of Beckman, alone or in combination, do not teach or suggest registering data identifiers and mediation processes in a reference table where each data identifier corresponds to at least one mediation process.

II. McConnell in view of Beckman, alone or in combination, do not teach or suggest identifying at least one mediation process to perform on invoice data by determining that the at least one of the plurality of mediation processes are registered in the reference table to correspond with the data identifiers that corresponds to the invoice data.

Claim 14 recites “identifying, with the mediation process manager, the at least one of the plurality of mediation processes to perform on the invoice data by determining that the at least one of the plurality of mediation processes are registered in the reference table to correspond with the one of the plurality of data identifiers that corresponds to the invoice data.” Thus, claim 14 requires that the reference table be consulted in order to determine what mediation process or processes to perform on the invoice data.

The Office Action relied on paragraphs 0016-0021 of McConnell to disclose these limitations. However, as mentioned above, the Examiner clarified in the

telephone interview that he was interpreting the billing log 5 as the claimed reference table. While the billing log 5 of McConnell may be a table, for the reasons set forth above in section I, Applicant respectfully submits that the billing log 5 cannot be interpreted as the claimed reference table. Furthermore, Applicant notes that McConnell does not disclose that the billing log 5 is consulted in order to determine how to process the messages. Rather, as discussed above in section I, McConnell discloses that the message header helps to identify whether to route the message to the billing log 5 or the real time billing mediation device 7.

Moreover, Applicant notes that claim 14 requires that the reference table be created first (i.e., see section I above regarding the first limitation of claim 14 of registering) so that the reference table may be consulted in order to determine what mediation process or processes to perform on the invoice data. In contrast, McConnell discloses that the billing log 5 is not created until after the message has been processed/routed to the billing log 5. For example, paragraph 0054 of McConnell discloses that “[t]he gateway may route event messages to a billing log for off-line processing” and paragraph 0022 of McConnell discloses that “[t]he Billing Manager may write the message (or some of its data) to the billing log 5.” Thus, the message is not written to the billing log 5 until after it has been routed to the billing log 5. Accordingly, McConnell in view of Beckman, alone or in combination, do not teach or suggest identifying at least one mediation process to perform on invoice data by determining that the at least one of the plurality of mediation processes are registered in the reference table to correspond with the data identifiers that corresponds to the invoice data.

For at least the reasons established above in sections I and II, Applicant respectfully submits that independent claim 14 is not taught or suggested McConnell in view of Beckman and respectfully requests allowance of this claim.

Rejection of Remaining Claims

Claims 15-17, 21-23, 32-37, and 39 were rejected under 35 USC § 103(a) as being unpatentable over McConnell in view of Beckman.

Claims 18-20 and 38 were rejected under 35 USC § 103(a) as being unpatentable over McConnell in view of Beckman in further view of Official Notice.

Dependent claims 15-23 and 32-39 depend directly or indirectly from independent claim 14 and incorporate all of the limitations thereof. Accordingly, for at least the reasons established in sections I and II above, Applicant respectfully submits that claims 15-23 and 32-39 are not taught or suggested by McConnell and respectfully request allowance of these claims. Beckman does not cure the deficiencies of McConnell.

New Claims

Claims 40-42 are added herein. Applicant submits that no new matter has been introduced by this amendment. Support may be found throughout the specification as originally filed, including at least paragraph 0034, 0035, 0037, 0038, and 0044.

Claim 40:

III. McConnell in view of Beckman, alone or in combination, do not teach or suggest that the plurality of mediation processes comprise data transformation, data manipulation, and delayed data processing.

Newly added dependent claim 40 includes the additional limitation that “the plurality of mediation processes comprise data transformation, data manipulation, and delayed data processing.” Applicant respectfully submits that no new matter has been added and support for newly added dependent claim 40 may be found in at least paragraphs 0037, 0038, and 0044.

Applicant respectfully submits that neither McConnell nor Beckman, alone or in combination, teaches or suggests that the plurality of mediation processes comprise data transformation, data manipulation, and delayed data processing. As discussed above in section I, McConnell merely discloses routing messages to the billing log 5 or the real time billing mediation device 7. Because McConnell merely discloses a single process (i.e., routing), McConnell cannot disclose that the plurality of mediation processes comprise three different mediation processes (i.e., data transformation, data manipulation, and delayed data processing). Furthermore, merely routing a message is not equivalent to any one of data transformation, data manipulation, or delayed data processing. Additionally, Applicant notes that a text search of McConnell for “transform”, “manipulat”, and “delay” produced no results.

In regard to Beckman, Beckman merely discloses performing a single data consolidation process. For example, the Abstract of Beckman discloses, “Unrelated or disparate vendors of goods and services transfer billing information to a centralized bill consolidation server, which extracts billing information and creates a standardized or

predetermined-format billing statement that can be electronically delivered to a customer of the vendors via e-mail or U.S. Postal Service.” Because Beckman merely discloses a single process (i.e., consolidating), Beckman cannot disclose that the plurality of mediation processes comprise three different mediation processes (i.e., data transformation, data manipulation, and delayed data processing). Furthermore, merely consolidating billing information is not equivalent to any one of data transformation, data manipulation, or delayed data processing. Additionally, Applicant notes that a text search of Beckman for “transform”, “manipulat”, and “delay” produced no results.

Moreover, in regard to the combination of McConnell in view of Beckman, Applicant notes, as discussed above, that each reference merely discloses a single process. Thus, at the most, the combination of McConnell in view of Beckman would only result in two processes being performed on data: (1) routing and (2) consolidation. In contrast, claim 40 requires that there be at least three mediation processes: (1) data transformation, (2) data manipulation, and (3) delayed data processing. Accordingly, McConnell in view of Beckman, alone or in combination, do not teach or suggest that the plurality of mediation processes comprise data transformation, data manipulation, and delayed data processing.

Claim 41:

IV. McConnell in view of Beckman, alone or in combination, do not teach or suggest that the mediation process or processes performed on the second invoice data to generate the second mediated output is different from the mediation process or processes performed on the invoice data to generate the mediated output.

Newly added dependent claim 41 includes the following additional limitations:

- retrieving, with the mediation transform unit, a second invoice data from one or more data sources stored in a computer readable storage media, the second invoice data corresponds to a second one of the plurality of data identifiers;
- identifying, with the mediation process manager, the at least one of the plurality of mediation processes to perform on the second invoice data by determining that the at least one of the plurality of mediation processes are registered in the reference table to correspond with the second one of the plurality of data identifiers that corresponds to the second invoice data; and
- performing the at least one of the plurality of mediation processes on the second invoice data to generate a second mediated output, wherein the second mediated output is different from the second invoice data, and wherein the at least one of the plurality of mediation processes performed on the second invoice data to generate the second mediated output is different from the at least one of the plurality of mediation processes performed on the invoice data to generate the mediated output.

Applicant respectfully submits that no new matter has been added and support for newly added dependent claim 41 may be found in at least paragraphs 0034 and 0035. Thus, claim 42 requires that at least two different mediation processes be performed on at least two different invoice data.

Applicant respectfully submits that neither McConnell nor Beckman, alone or in combination, teaches or suggests that the mediation process or processes performed on the second invoice data to generate the second mediated output is different from the mediation process or processes performed on the invoice data to generate the mediated output. As discussed above in sections I and III, McConnell merely discloses performing a single routing process and Beckman merely discloses performing a single data consolidation process. In order to better understand the argument that follows regarding the combination of McConnell and Beckman, Applicant would like to direct attention to the only Figure of McConnell (the "Figure"). Referring to the Figure of McConnell, a message enters the billing gateway 1 where the process of routing is

performed. The message is routed to either the billing log 5 and the billing mediation device 6 or the real time billing mediation device 7.

If the teachings of Beckman were combined with McConnell, Applicant respectfully submits that one possible result would be that the consolidation process of Beckman would occur at the real time billing mediation device and the billing mediation device 6. Thus, every message that entered the gateway 1 of McConnell would have the same processes performed on it: (1) routing and (2) consolidating. For example, regardless of whether the message is routed to the billing log 5 and the billing mediation device 6 or the real time billing mediation device 7, the message would still be (1) routed at the billing gateway 1 and (2) consolidated at the billing mediation device 6 or the real time billing mediation device 7. Thus, McConnell in view of Beckman teaches performing the same processes on every message, and not at least two different processes on two different messages. Accordingly, McConnell in view of Beckman, alone or in combination, do not teach or suggest that the mediation process or processes performed on the second invoice data to generate the second mediated output is different from the mediation process or processes performed on the invoice data to generate the mediated output.

Claim 42:

V. McConnell in view of Beckman, alone or in combination, do not teach or suggest that the mediation process or processes performed on the third invoice data to generate the third mediated output is different from the mediation process or processes performed on the second invoice data to generate the second mediated output and the mediation process performed on the invoice data to generate the mediated output.

Newly added dependent claim 42 includes the following additional limitations:

- retrieving, with the mediation transform unit, a third invoice data from one or more data sources stored in a computer readable storage media, the third invoice data corresponds to a third one of the plurality of data identifiers;
- identifying, with the mediation process manager, the at least one of the plurality of mediation processes to perform on the third invoice data by determining that the at least one of the plurality of mediation processes are registered in the reference table to correspond with the third one of the plurality of data identifiers that corresponds to the third invoice data; and
- performing the at least one of the plurality of mediation processes on the third invoice data to generate a third mediated output, wherein the third mediated output is different from the third invoice data, and wherein the at least one of the plurality of mediation processes performed on the third invoice data to generate the third mediated output is different from the at least one of the plurality of mediation processes performed on the second invoice data to generate the second mediated output and the at least one of the plurality of mediation processes performed on the invoice data to generate the mediated output.

Applicant respectfully submits that no new matter has been added and support for newly added dependent claim 42 may be found in at least paragraphs 0034 and 0035. Thus, claim 42 requires that at least three different mediation processes be performed on at least three different invoice data.

Applicant respectfully submits that McConnell in view of Beckman cannot teach or suggest that at least three different mediation processes are performed on three different invoice data. As discussed above in section III, both McConnell and Beckman merely disclose a single process. As discussed above in section IV, the combination of McConnell in view of Beckman would result in every message being routed and then consolidated. Thus, McConnell in view of Beckman teaches performing the same processes on every message, and not at least three different processes on three different messages. Accordingly, McConnell and Beckman, alone or in combination, do

not teach or suggest that the mediation process or processes performed on the third invoice data to generate the third mediated output is different from the mediation process or processes performed on the second invoice data to generate the second mediated output and the mediation process performed on the invoice data to generate the mediated output.

Conclusion

Applicant respectfully submits that the present application is in condition for allowance for the reasons stated above. If the Examiner has any questions or comments or otherwise feels it would be helpful in expediting the application, he is encouraged to telephone the undersigned at (972) 731-2288.

The Commissioner is hereby authorized to charge payment of any further fees associated with any of the foregoing papers submitted herewith, or to credit any overpayment thereof, to Deposit Account No. 21-0765, Sprint.

Respectfully submitted,

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